



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,983	09/15/2003	Donald Pierre Bourgon		4639

7590 03/22/2007
Pierre Bourgon
915 First Street East
Cornwall, ON K6H-1N3
CANADA

EXAMINER

KIM, TAE JUN

ART UNIT PAPER NUMBER

3746

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/664,983

Applicant(s)

BOURGON, DONALD PIERRE

Examiner

Ted Kim

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The informal drawings of 02/09/2004 are not of sufficient quality to permit ready reproduction. Furthermore, the figure labels obstruct portions of the figures and should be not be placed in the middle of a figure but to the top, side, or bottom. Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to this Office action. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

Specification

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or

REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(e) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(f) BRIEF SUMMARY OF THE INVENTION.

(g) **BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).** – **Note this section is required and completely missing any description of Figures 1-4**

(h) DETAILED DESCRIPTION OF THE INVENTION.

(i) CLAIM OR CLAIMS (commencing on a separate sheet).

(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 1-8 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly

and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. **Note the format of the claims in the patent(s) cited.**

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by CA 2,282,182 or CA 2299746. Applicant's previously filed Canadian patent applications published 2/25/2001 and 08/22/2002 respectively disclose the catalytic coating of the surfaces of the IC engine and Gas turbine engine with platinum catalyst. All the results of the "claims" are inherently performed or taught by these patent publications.

8. In all of the following references, the presence of the catalyst will perform the functions "claimed" by applicant including: reducing the activation energy, increasing the rate of combustion, reducing "missing" or "flameout", increasing engine mean effective pressure, increasing power output, increasing thermal efficiency, cleaner exhaust gases, allowing for greater ignition advance or higher compression ratio, etc. These are inherent capabilities of using the catalyst with the IC engine or Gas turbine engine.

9. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Totman (4,530,340), Bradstreet et al (2,978,360), Brass et al (4,612,880), Hagino (4,577,611). Each of these references teaches a catalytic liner on all the internal combustion engine components.

Totman (4,530,340) teaches catalytic liner 12, 18.

Brass et al teach a catalytic coating on the combustion chamber surfaces (see col. 5, lines 56-col. 6, lines 12).

Bradstreet teaches a catalytic coating 12, 13, 14, 15 (see col. 5, lines 9-15).

Hagino teaches a catalytic coating 7 on the combustion chamber surfaces.

10. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by any of Weil et al (5,355,668), Hums et al (5,946,917), Correa (5,460,002), and Pfefferle et al (4,603,547).

Weil et al teach a catalytic coating on any and all gas turbine components including combustor and turbine in the flow path (col. 3, lines 28-58). This will inherently reduce relighting in case of flameout.

Hums et al teach a catalytic coating 12 on the gas turbine combustor. This will inherently reduce relighting in case of flameout.

Correa teaches a catalytic coating 26 on the gas turbine combustor. This will inherently reduce relighting in case of flameout.

Pfefferle et al teach a catalytic coating 22 on the gas turbine combustor. This will inherently reduce relighting in case of flameout.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of Hums et al (5,946,917), Correa (5,460,002), Totman (4,530,340), Bradstreet et al (2,978,360), Brass et al (4,612,880), and in view of any of Hagino (4,577,611), Weil (5,355,668), CA 2,282,182 and CA 2299746. The claims are unclear as to what extent they claim the use of a platinum catalyst (appears only in claim 1 and not the rest). Hums et al (5,946,917), Correa (5,460,002), Totman (4,530,340), Bradstreet et al (2,978,360), Brass et al (4,612,880) all teach a catalytic coating on the combustor surfaces. To the extent which platinum is not disclosed, Hagino (4,577,611), Weil (5,355,668), CA 2,282,182 and CA 2299746 all explicitly disclose the use of platinum catalysts for either the IC engine or gas turbine engine. It would have been obvious to one of ordinary skill in the art to employ platinum as the catalyst, as a well known catalyst used in catalytic combustion and known for its strength and/or longevity, and/or suitability for this application.

13. An examination of this application reveals that applicant is unfamiliar with patent prosecution procedure. While an inventor may prosecute the application, lack of skill in

this field usually acts as a liability in affording the maximum protection for the invention disclosed. Applicant is advised to secure the services of a registered patent attorney or agent to prosecute the application, since the value of a patent is largely dependent upon skilled preparation and prosecution. The Office cannot aid in selecting an attorney or agent.

Applicant is advised of the availability of the publication "Attorneys and Agents Registered to Practice Before the U.S. Patent and Trademark Office." This publication is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Response to Arguments

1. Applicant's arguments filed 05/05/2005 have been fully considered but they are not persuasive. Regardless of the principle of operation, applicant admits that the only structural feature is the catalytic coating and hence, the claimed results are all inherent results of using a catalytic coating. Applicant argues that all his previous research and patent applications/publications, including CA 2299746 and CA 2282182 are incorrect. While there may be problems with these applications/publications, the substance of these publications, even if the patents are "withdrawn" as stated by applicant, are still printed publications and their teachings of using catalytic coatings in the same environment are fairly taught to one of ordinary skill in the art. Furthermore, the numbers of 65% are never explicitly set forth in those applications, and these applications fairly teach the catalytic coating of the combustion engine. Hence, while the calculated numbers may be

different, the results are inherently the same as there is no structural difference with the prior publications.

2. Applicant's response to the drawings are not persuasive. Corrected drawings are still required and this requirement will not be held in abeyance. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application for the reasons set forth above. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

3. Applicant's arguments with respect to the rejection under 35 USC 112, second paragraph are not persuasive. The claims are required to recite structure. The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. **Note the format of the claims in the patent(s) cited.**

4. Applicant's arguments with regarding the prior art in paragraph 9 of Totman (4,530,340), Bradstreet et al (2,978,360), Brass et al (4,612,880), Hagino (4,577,611) are not persuasive. Each of these references teaches a catalytic liner on all the internal combustion engine components. Applicant notes his chemistry book teach the same

[claimed] feature. This statement is regarded as a prior art admission, that the subject matter of catalytic coating of combustion surfaces of said engines is well known in the art. Furthermore, each of the examiner's statements of inherency has been indicated as falling under the category of "The Theory of Chemical Kinetics." This is entirely true, each of these results is inherent as a result of the said theory.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Ted Kim whose telephone number is 571-272-4829. The Examiner can be reached on regular business hours before 5:00 pm, Monday to Thursday and every other Friday.

The fax number for the organization where this application is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg, can be reached at 571-272-4828. Alternate inquiries to Technology Center 3700 can be made via 571-272-3700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). General inquiries can also be directed to the Patents Assistance Center whose telephone number is 800-786-9199. Furthermore, a variety of online resources are available at <http://www.uspto.gov/main/patents.htm>

 Ted Kim	Telephone	571-272-4829
Primary Examiner	Fax (Regular)	571-273-8300
March 6, 2007	Fax (After Final)	571-273-8300
Technology Center 3700	Telephone	571-272-3700